

ABSTRACT:

Disclosed is a limiting amplifier for amplifying an input signal including at least first portions having a first amplitude and second portions having a second amplitude being lower than said first amplitude, in particular digital signals comprising "one" and "zero" portions wherein the first portions are the "one" portions and the second portions are the "zero" portions. The amplifier comprises, a first peak detecting means for detecting the current maximum value in the input signal, said first peak detecting means comprising first holding means for storing the currently detected maximum value if it is higher than the previous stored value and decreasing means for decreasing the stored value in said first holding means if said first amplitude is lower than said stored value. The amplifier further comprises a second peak detecting means for detecting the current minimum value in the input signal, said second peak detecting means comprising second holding means for storing the detected minimum value if it is lower than the previously stored value and increasing means for increasing the stored value in said second holding means if said second amplitude is higher than said stored value. The amplifier further includes determining means for providing a first decision that a variation in the input signal is due to a variation in said first amplitude and/or second amplitude, or a second decision that a variation in the input signal is due to a transition from a first portion to a second portion, a third decision that a variation in the input signal is due to a transition from a second portion to a first portion, and controlling means for inactivating said decreasing means and said increasing means if said determining means provides said first decision, for activating said decreasing means if said determining means provides said second decision, or for activating said increasing means if said determining means provides said third decision.

Fig. 7